

Remarks

The applicants have carefully considered the office action dated May 12, 2009, and the art applied therein. By way of the foregoing amendments, claims 22, 24, 26, and 28 have been amended, and claim 25 has been canceled.

As a preliminary matter, the applicants further wish to place on the record that the examiner was requested to examine all new claims in an examiner interview conducted with Chad A. Pahnke, on April 1, 2009 (the undersigned notes that the examiner interview summary filed on April 1, 2009, was erroneously dated March 1, 2009). In the office action dated May 12, 2009, it appears that claims 27 and 28 have not been examined. In the prior response, claims 27 and 28 was included in the Status of the Claims as “new,” and therefore should have been examined. The excess claims fees for claims 27 and 28 were previously paid on transmission of the Request for Continued Examination submitted by the applicants on January 27, 2009. In view of the examiner’s remarks in the non-final office action dated May 12, 2009, the applicants respectfully request consideration of claims 27 and 28, in addition to requesting reconsideration of claims 2-5, 7-24, and 26. Because claims were not examined, despite being properly presented and paid for, it is respectfully submitted that any subsequent office action cannot be final. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all pending claims are in condition for allowance and favorable reconsideration is respectfully requested.

Double Patenting Rejections

Claims 1-26 were rejected on the ground of non-statutory obviousness-type double patenting over the claims of U.S. Patent No. 7,315,538. Applicants respectfully traverse this rejection. Nevertheless, when this application is allowed, the applicants may file a terminal disclaimer in compliance with 37 CFR 1.321(c) to obviate any double patenting rejection that may be proper at that time. The office is respectfully requested to hold the double patenting

rejection in abeyance until agreement on the allowable scope of the claims is reached, as this rejection may or may not be applicable to the allowed claims of this application.

The Rejections under 35 U.S.C. § 112

Claims 14-21, 26, and 27 were rejected for alleged clarity issues. By way of the foregoing amendment, claim 26 and, by extension, claims 14-21 and 27 have been amended. It is respectfully submitted that these amendments obviate any § 112 rejections that may have been proper. Withdrawal of the rejections is respectfully requested.

The Rejections under 35 U.S.C. § 102

The office action rejected claim 22 as anticipated by White, et al. (US 2007/0110041) (hereinafter “White”).

Claim 22 now recites, *inter alia*, aggregating a plurality of asymmetric Ethernet connections between an Ethernet network and a first point of service to aggregate download and upload bandwidths of the asymmetric Ethernet connections to increase total download and upload bandwidth to a subscriber. White does not discuss increasing bandwidth, much less aggregating asymmetric Ethernet connections between an Ethernet network and a first point of service to aggregate download and upload bandwidths to a subscriber.

White is directed to Ethernet-based digital subscriber line methods and systems. The description of White includes multiple customer premises coupled to a remote Ethernet device. *See White, FIG. 1*. The remote Ethernet device communicates with DSL modems at the customer premises via Ethernet, and communications with an Ethernet switch at a central office. *See White, FIG. 1, and paragraphs [0025-0027]*. The Ethernet switch further communicates with a packet data core network. *See White, FIG. 1*.

The office action cites the Ethernet devices 24 and 26 and the Ethernet switch 100 of White for aggregating. *See office action, page 12*. However, the alleged “aggregation” performed by White does not aggregate download and upload bandwidths to increase total

download or upload bandwidth to a subscriber. Instead, the system of White provides routing (at the Ethernet devices 24 and 26) and provides a termination onto the core packet network (at the Ethernet switch 100). *See White, paragraphs [0022] and [0028]*. The connection between the customer premise 40 and the Ethernet device 24 is slower than the connection between the Ethernet device and the Ethernet switch 100, which is in turn slower than the core data network 104. *See White, FIGS. 1, 6*. The connection speed to the customer premise 40 is limited by the DSL connection and, therefore, the alleged aggregating performed by White does not increase the bandwidth between the first point of service and the Ethernet network, and may even decrease the bandwidth available to the first point of service if the Ethernet device 24 and/or the Ethernet switch 100 handles too many smaller connections for the larger connection. Thus, White does not anticipate claim 22.

The office action later cites the multiplexer/AEM 40 of Saussy (US 5,936,963) (hereinafter “Saussy”) in connection with claims dependent on claim 22, for increasing a bandwidth between the first point of service and the Ethernet network. *See office action, page 25*.

Saussy is directed to implementing a switched Ethernet service using asymmetric full duplex circuits. Saussy shows a multiplexer coupled to several nodes via an asymmetric full-duplex circuit, one of the nodes having an Ethernet-to-asymmetric converter. *See Saussy, FIG. 1, 4:58-5:17*. The office action asserts that the step up in bandwidth from the connection 12 to the Ethernet 10/100 BASE T connections via the multiplexer 40 increases the bandwidth. *See office action, page 25, and Saussy, FIG. 1 and 9:17-24*. However, Saussy, like White, does not increase the bandwidth between the first point of service and the Ethernet network by aggregating (in Saussy, multiplexing) the data from the connection 12 onto the larger 10/100 BASE T connection with other data. Even if the connection 12 had the entire 10/100 BASE T bandwidth available to it after the multiplexer 40, the total bandwidth

between the first point of service (EAC 14) and the Ethernet network (10/100 BASE T connection) is limited by the connection 12. Therefore, the aggregating performed by Saussy does not increase the bandwidth between the first point of service and the Ethernet network, and may even decrease the bandwidth if too many additional nodes 8 are added to the multiplexer 40. Therefore, Saussy does not overcome the deficiencies of White.

For at least these reasons, the applicants respectfully submit that claim 22, and all claims depending thereon, are allowable over the applied references.

The Rejections under 35 U.S.C. § 103(a)

The office action rejected claims 5, 24, and 26 as unpatentable over a combination of White and Saussy.

Further to claim 22, claim 5 now recites, *inter alia*, third Ethernet port of a third asymmetric DSL modem and a first Ethernet port of the first asymmetric DSL modem aggregated at a first aggregator device in communication with an Ethernet network, and a fourth Ethernet port of a fourth asymmetric DSL modem and a second Ethernet port of a second asymmetric DSL modem aggregated at a second aggregator device at the first point of service.

The office action cites the modem blocks 80 and 82 of White for the second and fourth asymmetric DSL modems, and the Remote Ethernet device 24 of White for the aggregator device. *See office action, page 17*. However, the modems 80 and 82 of White are placed at different customer premises 40 and 46, respectively. *See White, FIG. 1*. Instead, the modem 80 provides an Ethernet port to a customer premises 40 and the modem 82 provides an Ethernet port to a second customer premises 46. *See White, FIG. 1 and paragraph [0025]*. Therefore, White does not teach or suggest wherein the second and fourth asymmetric DSL modems provide respective second and fourth Ethernet ports to the first point of service. Saussy does not overcome the deficiency of White.

Claim 24 now recites an aggregator to, *inter alia*, aggregate download and upload bandwidths of the asymmetric Ethernet connections to increase total download and upload bandwidth to the subscriber, and to communicate a subscriber data communication between the first point of service and the Ethernet network via two or more of the aggregated asymmetric Ethernet connections. As discussed above with regard to claim 22, neither White nor Saussy teaches or suggests these recitations.

Claim 26 now recites, *inter alia*, a first aggregator device coupled to a first point of service and a second aggregator device coupled to an Ethernet network, the second aggregator device to aggregate first and second asymmetric Ethernet connections, to aggregate download and upload bandwidths of the asymmetric Ethernet connections to increase total download and upload bandwidth to the subscriber, and to communicate a subscriber data communication between the first point of service and the Ethernet port of the Ethernet network via the first and second asymmetric Ethernet connections. As discussed above with regard to claim 22, neither White nor Saussy teaches or suggests aggregating download and upload bandwidths of asymmetric Ethernet connections to increase total download and upload bandwidth to a subscriber.

Claim 28 recites, *inter alia*, transmitting a first portion of a second subscriber data communication via a first one of the plurality of ADSL connections and a second portion of the second subscriber data communication via a second one of the plurality of ADSL connections, wherein the transmitting the first and second portions occurs at a second transmission rate different than a first transmission rate, and aggregating the first and second portions of the second subscriber data communication from the first and second ADSL connections for communication with the first subscriber location. Neither White nor Saussy describe transmitting different portions of a subscriber data communication via different ADSL connections and aggregating the portions for communication from the different ADSL

connection. The ADSL transmission performed by White and Saussy take place over a single ADSL connection. *See White, FIG. 1; Saussy, FIG. 1.* Therefore, no combination of White or Saussy can teach or suggest claim 28.

Conclusion

Reconsideration of the application and allowance thereof are respectfully requested. If there is any matter that the examiner would like to discuss, the examiner is invited to contact the undersigned at the telephone number set forth below.

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